

LEED[®] CERTIFICATION

Earn LEED[®] Certification 2.1 or 2.2 with Dietrich Metal Framing



LEED[®] stands for Leadership in Energy & Environmental Design. LEED[®] Green Building Rating System, as promulgated by the U.S. Green Building Council, is to improve environmental and economic

performance of commercial buildings using established or advanced industry principles, practices, materials and standards.

Dietrich recognizes the importance and growing agenda of LEED[®]. We are members of the U.S. Green Building Council and have LEED[®] Accredited Professionals on staff.

Dietrich Metal Framing can contribute towards achieving LEED[®] credits in several areas. Please contact your Dietrich representative for assistance with your next project.

Dietrich's sales and manufacturing locations are located within 300 miles of 85% of the U.S. population.

Materials and Resources

Materials & Resources Credit 4: Recycled Content intends to increase demand for building products that incorporate recycled content materials, therefore reducing impacts resulting from extraction and processing of new virgin materials. As discussed and demonstrated below, steel building products contribute positively toward earning points under Credit 4.1 and Credit 4.2. The following is required by LEED Version 2.2:

Credit 4.1 (1 point) "Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% of the total value of the materials in the project."

Credit 4.2 (1 point) "Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 20% of the total value of the materials in the project."

"The value of the recycled content portion of a material or furnishing shall be determined by dividing the weight of recycled content in the item by the total weight of all material in the item, then multiplying the resulting percentage by the total value of the item." Since steel (the material) and steel (the building product) are the same, the value of the steel building product is directly multiplied by steel's recycled content, or:

$$\text{Steel Recycled Content Value} = (\text{Value of Steel Product}) (\text{Post-Consumer \%} + 1/2 \text{ Pre-Consumer \%})$$

The formula above calculates the post-consumer and pre-consumer recycled content percentages for North American steel building products. These percentages and values of steel building products are easily entered into the LEED Letter Template spreadsheet for calculation. To illustrate the application of these steel recycled content values to LEED, manual calculations are shown below for typical Basic Oxygen Furnace (BOF) and Electric Arc Furnace (EAF) steel building products with nominal \$10,000 purchases, using 2004 data. Steel building products include light gauge steel framing, structural steel framing (wide flange beams, channels, angles, etc.), rebar, roofing, siding, decking, doors and sashes, windows, ductwork, pipe, fixtures, hardware (hinges, handles, braces, screws, nails), culverts, storm drains, and manhole covers.

BOF Steel Recycled Content Value for Typical Product:

$$\begin{aligned} &\text{Light Gauge Steel Framing} \\ \text{Value} &= (\$10,000) (23.5\% + 1/2 \ 6.4\%) = (\$10,000) \\ &\quad (26.7\%) = \$2,670 \\ &\quad (\text{Exceeds 10\% and 20\% goals}) \end{aligned}$$

EAF Steel Recycled Content Value for Typical Product:

$$\begin{aligned} &\text{Wide Flange Structural Steel Framing} \\ \text{Value} &= (\$10,000) (57.5\% + 1/2 \ 32.5\%) = (\$10,000) \\ &\quad (73.75\%) = \$7,375 \\ &\quad (\text{Exceeds 10\% and 20\% goals}) \end{aligned}$$

Information courtesy of The Steel Recycling Institute

* LEED is a registered service mark of the U.S. Green Building Council